

**SERVICE DATE**  
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Public Service Commission of Wisconsin  
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**PUBLIC SERVICE COMMISSION OF WISCONSIN**

2015 Miscellaneous Tariff Filings

3270-TE-101

Application of Madison Gas and Electric Company to Implement a  
Community Solar Pilot Project

**FINAL DECISION**

**Introduction**

On September 28, 2015 Madison Gas and Electric (MGE) submitted an application to implement a Community Solar Pilot Project. ([PSC REF#: 275655](#).) The Commission requested comments on the proposed project on January 6, 2016, and received comments from three organizations and MGE on January 14, 2016. The Commission considered these comments and first discussed the project at its open meeting of January 21, 2016. At that meeting, the Commission directed MGE to address some concerns and provide additional information regarding the proposed project. MGE filed the requested supplemental information on February 19, 2016 ([PSC REF#: 282005](#)), and the Commission again considered the application at its open meeting of March 11, 2016. The Commission received comments from RENEW Wisconsin, the Environmental Law and Policy Center, and Vote Solar, which it considered in making this decision.

The application is APPROVED, subject to conditions.

## Opinion

### Program Design

MGE's proposal differs from the other community solar programs previously authorized by the Commission.<sup>1</sup> MGE proposed to construct, own, and operate a 500 kilowatt (kW) solar photovoltaic (PV) array in the city of Middleton. MGE would then sell subscriptions to residential customers that allow a customer to purchase some proportion of his or her energy use directly from the PV array for 25 years. After paying a one-time, non-refundable subscription fee, representing 10 percent of the capital costs, a residential customer could source up to half of his or her annual energy needs from the array in 250 watt increments. Customers may leave the program at any time, and MGE would offer to resell any subscriptions that are forfeited within the first 3 years of the program.

Customers purchasing power generated by the PV array will pay a levelized \$0.12/kilowatt-hour (kWh) rate for all energy that is sourced from the array. The levelized rate for the production from the PV array is composed of the capital costs, operating and maintenance (O&M) costs, and a rate of return all divided by the projected output of the array over 25 years. MGE would recover its costs over time as customers pay for the output of the array. MGE shareholders would also contribute \$85,000 to cover some of the remaining capital costs. As this is a pilot project, the Commission is concerned that MGE's assumptions may not remain accurate for the entire 25-year life of the project. Therefore, MGE shall provide information

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<sup>1</sup> See Final Decisions in dockets 4220-TE-101 ([PSC REF#: 236916](#)), 4139-TE-102 ([PSC REF#: 273770](#), [PSC REF#: 275603](#)), and 5110-TE-102 ([PSC REF#: 273771](#), [PSC REF#: 275604](#)).

about projected sales from the PV array in future rate cases so that adjustments to this rate can be considered, if circumstances warrant.

For all energy sourced from the array, subscribers will also pay half of the transmission costs in the embedded cost retail rates. All other energy will be purchased at the Rg-1 retail rate. All energy, regardless of source, will also be subject to the retail distribution charge in Rg-1, and subscribers will continue to pay the residential monthly customer charge.

MGE proposed that the program would only be available to residential customers who do not already have solar PV or some other distributed generation on-site. MGE later revised its proposal and agreed to make the program available to all residential customers. The Commission is concerned that limiting the availability of this program could hinder its success. Therefore, the Commission finds it reasonable for the program to be available first to customers who do not already have on-site distributed generation and, if the program is not fully subscribed by August 30, 2016, MGE shall open the program to all residential customers, including those with distributed generation systems.

### **Program Costs**

The program is designed to ensure that the costs of the program are financed by program subscribers and that the investment does not increase MGE's rate base. As described above, the subscription fee and levelized \$0.12/kWh rate covers the majority of the capital costs, O&M expense, and return for this project with the remainder contributed by the shareholders.

MGE proposed to recover from ratepayers one half the cost of the inverters installed with the PV array. MGE argues that the use of these "smart inverters" will provide distribution level

benefits to all ratepayers in the form of voltage regulation, system stability, low-voltage ride through, ramp rate control, and two-way communication. The Commission is concerned that ratepayers may not realize the benefits of the inverters claimed by MGE. Nonetheless, it is not necessary at this time to determine whether the cost of the inverter should be shared by non-subscribers. Therefore, MGE shall provide further information and documentation regarding benefits to ratepayers from the inverters in its next rate case, if it seeks to recover these costs in its rates.

The Commission also notes that this program may have an adverse effect on retail residential rates by lowering the sales volume in the residential class. In a rate case, the revenue allocation assigned to a specific customer class is divided by the sales in that class to arrive at the rates. Since this program effectively reduces the sales to the residential class, rates may be set higher than they otherwise would be in a rate case. The Commission continues to be concerned with issues of cross-subsidization and will evaluate the cost treatment and impacts to non-subscribers in MGE's next rate case.

### **Rooftop Space Arrangement**

The PV array will be located on the roof of the Middleton Operations Garage. In exchange for using the roof at no cost, MGE has agreed to construct a 100 kW PV array on the roof of the Middleton Police Station. MGE will own and operate the police station array for 7 years, at which time, the city of Middleton may purchase the array at the greater of net book or fair market value. This will allow MGE to take advantage of tax incentives, including accelerated depreciation that the city would not be eligible for. The Commission recognizes that

this agreement may result in a lower cost for the program subscribers because there are no lease or real estate expenses to MGE in constructing the PV array. Nonetheless, the Commission has concerns about the costs to MGE's non-participating ratepayers of constructing the second system on the Middleton Police Station. If MGE decides to seek inclusion of the Police Station project in its rate base, it shall include the request in a future rate case filing and provide information as to whether those project assets are used and useful for MGE customers. Further, the Commission notes that approval of this pilot project does not indicate the Commission's preference for these types of deals or arrangements for any future projects. Any future project will be evaluated on its own merits based on the facts and circumstances present at that time.

### **Reporting Requirements**

This project provides an opportunity for MGE and the Commission to obtain information on the effects of distributed generation and customer interest in renewable offerings. Therefore, MGE shall report annually to the Commission on the following:

1. the amount of energy produced by each PV array;
2. the hourly production curves for each PV array by month;
3. the number of subscribing customers;
4. the average subscription size in kW; and
5. the amount of unsubscribed shares in kW.

In addition, if there are more than 250 interested subscribers, MGE shall report to the Commission regarding the status of enrollment, identify if there are customers who were placed on a waiting list, and provide information as to whether it would be appropriate to reconsider if

shares forfeited after 3 years of operations could be offered to new subscribers. The report will be due to the Commission by May 1 of each year and include data on the previous year's production.

### **Order**

1. MGE's community solar pilot program and associated tariff are approved, as conditioned in this Final Decision. MGE shall file the community solar tariff with the Commission and make the tariff available to the public pursuant to Wis. Stat. § 196.19 and Wis. Admin. Code § PSC 113.0501(1).

2. MGE shall file an annual report no later than May 1 on the previous year's production and other customer-related data identified in this Final Decision.

3. MGE shall make subscriptions to the project available first to customers who do not already have on-site distributed generation and, if the program is not fully subscribed by August 30, 2016, MGE shall open the program to all residential customers, including those with distributed generation systems.

4. MGE shall provide information about projected sales from the PV array in future rate cases so that adjustments to the levelized rate can be considered, if circumstances warrant.

5. MGE shall provide further information and documentation regarding benefits to ratepayers from the inverters in its next rate case, if it seeks to recover costs associated with the inverters in its rates.

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6. This Final Decision takes effect one day after the date of service.

7. Jurisdiction is retained.

Dated at Madison, Wisconsin, this 1<sup>st</sup> day of April, 2016.

By the Commission:

A handwritten signature in black ink, appearing to read "Sandra J. Paske". The signature is fluid and cursive, with a long horizontal stroke at the end.

Sandra J. Paske  
Secretary to the Commission

SJP:RSS:jlt:DL: 01301867

See attached Notice of Rights

PUBLIC SERVICE COMMISSION OF WISCONSIN  
610 North Whitney Way  
P.O. Box 7854  
Madison, Wisconsin 53707-7854

**NOTICE OF RIGHTS FOR REHEARING OR JUDICIAL REVIEW, THE  
TIMES ALLOWED FOR EACH, AND THE IDENTIFICATION OF THE  
PARTY TO BE NAMED AS RESPONDENT**

The following notice is served on you as part of the Commission's written decision. This general notice is for the purpose of ensuring compliance with Wis. Stat. § 227.48(2), and does not constitute a conclusion or admission that any particular party or person is necessarily aggrieved or that any particular decision or order is final or judicially reviewable.

*PETITION FOR REHEARING*

If this decision is an order following a contested case proceeding as defined in Wis. Stat. § 227.01(3), a person aggrieved by the decision has a right to petition the Commission for rehearing within 20 days of the date of service of this decision, as provided in Wis. Stat. § 227.49. The date of service is shown on the first page. If there is no date on the first page, the date of service is shown immediately above the signature line. The petition for rehearing must be filed with the Public Service Commission of Wisconsin and served on the parties. An appeal of this decision may also be taken directly to circuit court through the filing of a petition for judicial review. It is not necessary to first petition for rehearing.

*PETITION FOR JUDICIAL REVIEW*

A person aggrieved by this decision has a right to petition for judicial review as provided in Wis. Stat. § 227.53. In a contested case, the petition must be filed in circuit court and served upon the Public Service Commission of Wisconsin within 30 days of the date of service of this decision if there has been no petition for rehearing. If a timely petition for rehearing has been filed, the petition for judicial review must be filed within 30 days of the date of service of the order finally disposing of the petition for rehearing, or within 30 days after the final disposition of the petition for rehearing by operation of law pursuant to Wis. Stat. § 227.49(5), whichever is sooner. If an *untimely* petition for rehearing is filed, the 30-day period to petition for judicial review commences the date the Commission serves its original decision.<sup>2</sup> The Public Service Commission of Wisconsin must be named as respondent in the petition for judicial review.

If this decision is an order denying rehearing, a person aggrieved who wishes to appeal must seek judicial review rather than rehearing. A second petition for rehearing is not permitted.

Revised: March 27, 2013

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<sup>2</sup> See *Currier v. Wisconsin Dep't of Revenue*, 2006 WI App 12, 288 Wis. 2d 693, 709 N.W.2d 520.